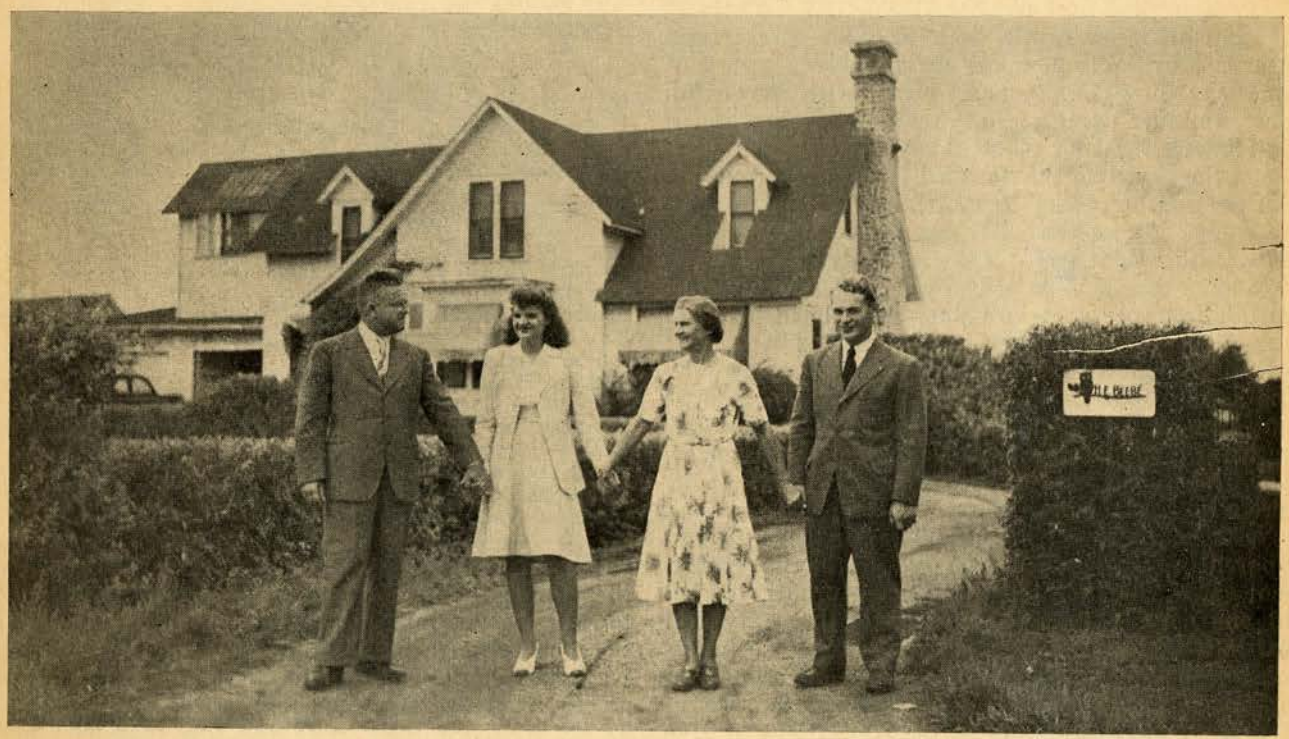
VOLUME XV

Price 5 Cents
Number 12

NORTH AND SOUTH DAKOTA HORTICULTURE

DECEMBER, 1942



An F. F. of S. D. Left to right: Mr. H. E. Beebe, Ipswich; Beatrice; the commander in chief; and stalwart son Edward

NORTH DAKOTA HORTICULTURE SOUTH DAKOTA

Dec. 1942

Vol. XV. December, 1942 No. 12

Entered as second class matter at the Post Office at Sioux Falls, South Dakota, under the act of August 24, 1912. Original Office of entry, Pierre, South Dakota.

Membership in the South Dakota State Horticultural Society is one dollar per year; fifty cents of this amount is for the subscription to "North and South Dakota Horticulture." The subscription rate for affiliated organizations is twenty-five cents per member, per year.

Published monthly at Sioux Falls, South Dakota, by the North and South Dakota State Horticultural Societies. Address all communications to W. A. Simmons, Secretary, Horticultural Office, Court House, Sioux Falls, South Dakota.

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COOPER'S HAWK

By

O. A. Stevens

O. A. Stevens

Almost contemporaneous with Audubon was one Charles Lucien Bonaparte. He was a nephew of Napoleon's and came to America when the name went down in France. He was quite a different sort of man from his uncle and was not only one of the leading ornithologists, but also the most scientific writer on Amreican birds of the period. Continuing Wilson's work, he found quite a dozen new species. One of these was Cooper's hawk, discovered in New Jersey and named for William Cooper, a New York scientist of note who first described the evening grosbeak.

Probobly the Prince would have chosen a different name for this bird could he have forseen that it would become the most notorious outlaw of the group. This species, the goshawk (see Jan. 1942 issue) and the sharp-shinner hawk, both of which have been described by Wilson, make up a distinct group of American hawks. Compact birds with powerful, short, rounded wings, they are truly prototypes of the modern fighting plane. They are not seen soaring in the sky, like the buzzard hawks, nor coursing over the meadows, like the marsh hawk. They inhabit the timber where they can use the cover and their remarkable flight control to great advantage.

Cooper's hawk is described as about the size of a crow. The upper parts are slaty-gray, head blacker; blacker; under parts crossed with parts of brownish; tail long, rounded and marked with four cross-bars. The species is distributed over most of the United States and southern Canada. During winter it ranges southward from central states to Central America. It is probably much less seen than it would be if it were a bird of the open country.

Nests are built in trees, the distance above ground apparently varying with the height of the timber. Mr. Bent states that new nests are usually built but an old one may be repaired and used; that a typical nest in a white pine would be built on some horizontal branches against the trunk, two feet wide and eight inches high, while in a deciduous tree it would be in a crotch, deeper and not so wide. Four or five eggs are laid. They are about two inches long, rather rounded, white or bluish-white when fresh, less commonly marked with pale brown.

The hawks of this group feed chiefly on birds. Bent states that Cooper's "is essentially the chicken hawk, so cordially hated by poultry farmers, and is the principal cause of the wide spread antipathy toward hawks in general***does more damage in the poultry yard than all other hawks put together". Its habits suggest that its raids might often escape notice whereas the occasional raids by the other hawks are more likely to be seen. One man who kept a young bird captive, records that it ate on the average, eight English sparrows per day. The amount of food eaten by captive birds is usually regarded as much lower than it would be in natural state.

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NEWSLANTS

By
Harry A. Graves

H. A. Graves

The apricot seedling contest sponsored by the Michigan Agricultural Experiment Station was won by John Abernathy of Lansing. The story appeared in a recent issue of the Chicago Packer. Abernathy's apricot was seventy years old, stood thirty feet high, and had a limb spread of forty two feet. It bore thirty bushels of fruit this year.

John Zaylskie, North Dakota Extension Service Forester has unearthed a cottonwood tree that is the largest tree in North Dakota yet reported. This tree in located about three miles east of Hillsboro on the Goose River. Mr. Zaylskie had an opportunity to make comparative measurements between this tree and the large cottonwood near Bathgate and has pronounced the Traill County cottonwood larger.

Folks who have visited the Dominion Experimental Farm at Morden, Manitoba the past ten years can sympathize with Mr. Leslie over the loss of Leslie Kerr, fruit specialist at the station during this period. Mr. Kerr is the new superintendent of Dominion Forest Nursery Station at Sutherland, Saskatchewan. Mr. Leslie pays a fine tribute to him in a recent weekly newsletter from the Morden Station.

OUT OF BOUNDS

Helen Weishimer

Your garden isn't well-behaved,
Your flowers haven't manners,
Defiant flags run anywhere,
To wave exited banners.

Stray pansies hide beneath slim leaves,
And roses climb all over
The trellises and window sills,
And dandelions and clover.

Go tumbling on bush-bordered lawns.
The patchwork's nice and crazy.
Most any place you look you'll see
A hyacinth or daisy.

My garden spot is orderly.
The landlord has alloted
A window ledge designed to hold
Six tulips nicely potted.

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FRUIT & VEGETABLE NOTES

By
F. X. Wallner

F. X. Wallner

I. W. Studer, of Lac Pelletier, Sask., Canada asks for a pkt. of seed of the "new tomato with the pretty name", and says he always enjoys NORTH AND SOUTH DAKOTA HORTICULTURE. I believe the freeze of Oct. 21st., was too much for the cabbages and root crops still in the field; there are complaints about cabbage being black in the center and carrots will be hurt on the upper two inches. We have done our best to salvage several patches in the county that would not have otherwise have been harvested. I know of three patches of nice dark red beets that will freeze up for want of help or market. Wonderful cow feed they would make. Have been in sort of a dreamy trance since the baby of the flock has been gone, bedfellow for the past fifteen years, but his first letter states that it will soon be over, as no other nation can buck the men and equipment that he has seen. Today we have a bushel of Canadian McIntosh apples that were very good and I read in the PACKER that 15 to 35 per cent of the apple crop in Wenatchee, Wash., was still on the trees Nov. 1st.; not enough help to gather the big crop. The Doctor, from Chicago, sends me some onion history that goes back farther than anything I have ever read, so will use it to fill out my page.

The year is 632 A. D. Outside the western gates of Medina, City of the Apostle of God, an awestruck throng stands and gazes skyward. There, miraculously suspended between heaven and earth, floats the coffin of the newly-dead Prophet Mahomet!

The crowd grows. Newcomers are arriving constantly; among them two Moorish sailors whose approach is scarecly noticed until—suddenly!—the coffin dips slightly; steadies; then plunges to the ground! . . . deprived of its magnetic support, according to the ancient myth, by the odor of *onions* on the breaths of the sailors!

Introduced into magic because of their distinctive physical characteristics, onions, leeks and garlic have long been credited with numerous other properties quite as extraordinary as that of power to suspend magnetic attraction. In the temple at Pelusium, in ancient Egypt, the fragrant bulbs were worshipped as deities. Hippocrates prescribed leeks for tubercular patients, and his countrymen held that allia-

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MANITOBA NEWS LETTER

By
W. R. Leslie

W. R. Leslie

The raspberry patch is a valued part of many prairie gardens. This season the cane fruits bore heavy crops of fine fruits. A well soaked subsoil last September, and a cool, moist summer this year, favoured berry fruits. Frequent rains helped to keep red spider mites from doing much damage.

Ruddy yielded heavily. That North Dakota variety from Latham x Plum Farmer cross, at the Morden Experimental Station is considered the most reliable variety of canning raspberry for the home garden. The fruit is of medium size, purplish red; pleasantly acid and borne abundantly.

Indian Summer, from the New York Experiment Station at Geneva, supplies a superior variety that gives an autumn crop following a generous crop in July. The strong-growing canes have been very hardy without bending over. Like the Ruddy the berries are somewhat soft and tend to be rather crumbly when mellow ripe, hence Indian Summer is for home canning rather than for commercial shipment. The berries are lighter red than Latham. They are roundish conic and medium large.

Newburgh, from the Geneva Station, produced many large, bright red firm berries of good quality. This variety ships well. It seems well to tip back the canes about one-third their length in April, to localize the energy of the plant.

Marcy and *Taylor*, also of Geneva origin, bore heavy crops of large, attractive red berries. Last winter was a mild one and there remains doubt as to how hardy these varieties will be during harsh winters. They were highly esteemed this year. Being firm, they are shippers.

Latham and *Chief*, from the Minnesota State Fruit Breeding Farm, continues reliable and popular for commercial and home garden use.

A number of new cross-bred red raspberries, from the Central Experimental Farm, Ottawa, promise to challenge older varieties for prairie plantations. They should command detailed comment next year.

Among black varieties of raspberries, the two New York varieties, *Bristol* and *Dundee*, again proved of top excellence. Both were strong in cane, healthy and productive of large, glossy, firm, black berries. The fruits of Dundee were slightly larger, more glossy, but when canned were somewhat more seedy than those of Bristol.

In the purple canes, *Sodus* was best. It was developed at Geneva by crossing Dundee with Newburgh. It was healthy, where Columbia carried disease. *Potomac* yielded many large, purple berries of good quality.

Blackberries and dewberries were unthrifty.

The dormant season has arrived in prarie gardens. As long as the soil remained warm the roots of spruce trees, and of many other plants continued to extend and to strengthen. Now the earth over the roots has become cool, and the plants are in slumber. However, fruit trees, although asleep, are subject to disturbances in response to adverse conditions of weather. They may experience nightmares that partly awaken them and that leave deep wrecking scars that shall continue to mar and to maim them from now on through their lives. The injuries are unsightly. What is much more important, they impair the usefulness and shorten the career of the victim.

Sunscald is the name given to the accident. It is so common in prairie plantings, while at the same time being easily avoidable, that Morden Station notes this week are devoted entirely to its consideration.

Sunscald occurs usually in late winter and early spring. The interior continental climate here in winter is distinguished by clear, bright sunny days and by crisp cold nights. The air is dry and that state induces wide and quick changes in temperature. Moist, cloudy weather evens daily temperatures and narrows and slows the changes from noonday to mid-night thermometer readings. Ordinarily March and early April finds the sun shining brightly. With sunset the atmosphere becomes keenly cold with abruptness. The trees are becoming nearly slept out. They respond to the direct rays of afternoon sunlight, and to their accompanying waves of heat. This stimulates movement of sap on the southwest side of the tree. With the setting of the sun, the bark loses its source of heat. Frost comes sharply and the cells of the cambium layer are killed by freezing of the sap. This may be due to expansion of liquids on freezing or to poisonous chemical changes that sometimes occur. Then in May, small or large patches, or sheets, of bark and cambium are noticed to be dull, dry, hard and dead.

Prevention is the one satisfactory treatment. Exposed trunks of trees and shrubs with thin, tender bark should be protected on their southwest sides against direct sunshine. There are many methods. A sheaf of corn may be tied against the trunk. Heavy

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GARDEN NOTES

By

W. E. H. Porter

W. E. H. Porter

Once more the month is here, when we do homage to the birth of our Christian era and for a continuation of which we are staking our very existence. Regardless of this or that dogma the code of Christian ethics is a rule of life that we may well emulate. Sept. 30.h. The equinox having come and gone with snow squalls and a low of 18 above, even freezing some potatoes in the ground, we welcome our blissful Indian summer with 75 in the shade, a sunny, still, warm but not hot day with thin blue horizon haze and the hum of the thresher, everywhere. But the garden prepares for winter's long death watch, few trees retain their foliage. Of various maples the Amur is green as ever, a better showing than our native boxelder, the leaves of which dried on its boughs and also largely on Chinese elms, but lilacs, weeping birch, cotoneaster and New England thorn (Crataegus punctata) hold their summer green and the latter, a bush of many years standing shows fruit for the first time. Oct. 1st. Warmer, heard and saw a catbird in garden. Skinner's Alyssum atlanticum in fall bloom. Recent frost has badly damaged Harrington's pink aster and also the round low Ronaldi; but the "Maids" from Norwalk's of Connecticut unscathed, with the exception of Maid of Wilton, which has completely vanished, also Fanny Heath and Tansy asters colorful as ever. Oct. 7th. Slowly chlorophyll withdraws from green foliage of weeping birch and as slowly the metamorphosis is to old gold and in the now arid slough narrow leaved willows undergo a similar transformation, forming aureole domes and a dust-raising west wind, defoliates boxelders filling the air with their withered remains. Along with asters, clustered, fragrant blooms of Verbena venosa brighten the garden, a species of many alias such as bonariensis, rigida etc. my particular plant covers about a square yard and so far is impervious to climatic changes. Oct. 10th. With 79 in shade, one again dons lightest summer garb. Oct. 12th. A sudden drop to 52 and damp north wind, for a yard or two fragrance of many blooms on semper florens violet is quite noticeable, the plant with aid of runners reaching out in all directions; it really seems to be a very adaptable variety of the ubiquitous odorata and a May flowering composite Actinea herbacea seems convinced that this is spring's awakening instead of late autumn's dying flame. One plant displays a large double yellow daisy, with buds in many others; one of my prettiest dwarfs is the Dyer's Woodruff Asperula tinctoria, a first cousin and much the appearance of the bedstraws, with same lacy green foliage and numerous mistywaxy small pink flowers from red buds in branching cymes which is still in full bloom. Pearces 1941 pkt. of salmagundi yielded several plants, many of seeds germinating a year later, surprised to note a pink spire on Veronica incana rosea and the baby breath rosy veil also in bloom on an August divided plant. Oct. 22nd. In this sad world good times end all too quickly and suddenly. At noon today last nights ice still holds with a shade temp. of 28, grey sky, wind and snow squalls, and like the vestal virgins of old we must again keep the fires going for the next six months. A nice occupation is perusing the pages of that newly arrived quarterly, the English COUNTRYMAN; I pass on some items gleaned from its pages, food value of celery, asparagus, cucumber and marrow is negligible and excessive smoking is said to have sent duodenal cases soaring in Army and Navy force, as destructive perhaps is fruit juice racket; in the county of Somersetshire the lads of a certain village are ferreting holes of field mice with a large bumblebee, and a lady who believes in natural feeding of infants says: "It seems to me a good idea, since it doesn't go sour overnight and its where the cat can't get at it". And unlike bumblebees, hive bees work only one species of flower during a flight and 30 to 40 leaves are needed to mature a fine apple. Oct. 26th. Listened to Willkie's broadcast, clear, simple, well composed telling the truth and so showing the way out of this wilderness. Thank God for Willkie. Oct. 28 th. A somewhat milder S. E. wind, this horrid weather has now lasted for a week, continues hard black frost dropping to zero at nights but no snow, so far, good range for cattle. Fall asters struck down at their best and, as yet window garden a healthy green only, with however, one exception, a never failing begonia, blooming outdoors since late May and now a cheering spot in the kitchen window. From Bailey's description it must be the hybrid semperflorens X fuchiodes Corbeille de Feu (basket of fire), flowers coral red, single with yellow anthers showing everywhere thru and over the dark green foliage and so for the rest all that remains is hope.

Mr. Hirohito, the son of heaven, is getting a taste of that other place where he's pretty soon gonna be an adopted son.—Foxtail Johnson in The Prairie Farmer.

BEEBE'S PHILOSOPHY

By
H. E. Beebe

DECEMBER DELIGHTS DREAMY DAKOTANS

H. E. Beebe

Why dream in December? Why not, the bushes, trees and bulbs we prize the most are taking a rest awaiting the magic touch of spring. They must sleep to dream but we can dream without sleeping and our dream is of a better flower garden in 1943 maybe more compact with more water per square foot. Help will be harder to get, so why not use less area, located where it will be a pleasure to the passer-by? Your dream may spread to him.

This war time—it is night as I write this at 8 A. M.—brings back a poem which is dedicated to W. E. H. Porter, as a Christmas Greeting: It depicts the optimism of Dakotans.

I heard a bird sing in the dark of December,
A magical thing, and sweet to remember.
"Its nearer to spring, than it was in November."
I heard a bird sing in the dark of December.

—Oliver Herford

CHRISTMAS COMES CAROLLING

A large carol is sung to the faculty of the State College whose friendship and interest, at our annual meeting at Brookings, was most highly appreciated by all present, and I can do no better in reporting this meeting to those who this year, due to the great press of manual labor, were unable to attend, than to quote the Resolutions passed unanimously as follows:

We, the members of the State Horticultural Society of South Dakota, express appreciation for the hospitality of the citizens of Brookings and the Faculty of State College in making this one of the most pleasant and valuable meetings in our history.

The banquet in honor of Dr. Hansen was a high light and as A. L. Ford the toastmaster announced, is the beginning of honoring other leaders of horticulture in our State.

The early cooperation of the Garden Clubs with our organization is desired and the directors have authorized a Garden Club page in our monthly magazine. We hope that our society may be of great value and use to the members of the Garden Clubs in the ensuing year, and that they may become full members of our society.

The Hansen Foundation Orchard recently approved by State College and located on its grounds, to contain the results of Dr. N. E. Hassen's great work will perpetuate his discoveries and honor his achievements. All members of the Society and citizens of South Dakota will cooperate in the early planting of this Garden. We recommend that the State Horticultural Society of South Dakota build an ornamental gateway in honor of our President—emeritus.

As per the action of our executive committee, we urge the planting of more Victory Gardens in 1943, and recommend the display of products both fresh and preserved at Victory Garden Harvest Shows, the proceeds going to Army and Navy Relief.

HAPPY NEW YEAR

That wording is hard to improve on. There are signs that 1943 will be happier. There will be heavy causualties in our armed forces, but we will see light ahead, and if the Peace which may come in 1944 is founded on more comforts of life, for the masses of Japan as well as England, this will be a better world. I hope to see the upper crust of both countries plowed under, and mixed with the common soil, this will improve both.

Those who receive benefits however, should pay for them. Most things a person works for are most appreciated and steady hard work, physical and mental, burns out the trivial. Our friend W. H. Over, in his Museum News, writes.

"McGuffy's Readers were real character builders installing honesty and integrity in the minds of young people during that early period. We wonder too, if this influence did not have much to do in shaping our Democracy. If so, it is to be regretted that they have not been in use in our common schools for the past 50 years, for is our opinion we have slipped a bit. After all, of what benefit is education unless it tends to inculcate in the minds of our young people toward a more wholesome character?"

The above is a New Years Greeting to Harriet Popowski of Aberdeen, who wants more back bone, and less flowers in poetry.

All Horticulturists wish to other fine people—

To N. E. Hansen, the establishment of the Memorial Garden at State College, by April 1943.

To our Secretary, W. A. Simmons, an album of luscious beauties, with wonderful limbs. I am talking of trees.

To our genial President, Geo. Gurney, a most successful business year, and a wise administration.

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NORTH DAKOTA HORTICULTURE SOUTH DAKOTA

SECRETARY'S CORNER

By

W. A. Simmons

W. A. Simmons

Perhaps "Apple Nuggets", mentioned by Mr. Graves in Newslants, last month was as new to some of our members as it was to me, so I am giving the explanation of it, given by Dr. A. F. Vierheller in the current MARYLAND NEWS LETTER. "Apple nuggets are a sort of super-dried apples. The nuggets may be eaten with cereals, and when soaked, make excellent pies or sauce. Not all types of apples are adapted to nugget use. Rome, Baldwin and Stayman are good varieties for the purpose. The nuggets are considered as dehydrated, not dried apples. They contain 3 to 5 percent moisture, and dried apples contain 17 to 26 percent moisture. Nuggets do not become rancid, and keep better than dried apples, with superior flavor. Dehydrated apples (nuggets) make about 10 times their weight in sauce and pie filling. Nuggets are placed in 5 gallon air-proof black metal cans; they are made principally in the Northwest." Mr. H. R. Woodward, Hot Springs, reports as Follows: "The pine trees planted recently at Robertson Memorial Park, survived 100 percent. There are now 31 good, healthy pines there." Perhaps our further planting there should be of conifers of a more ornamental character such as pyramidal junipers, beside the entrance gates, even tho these are quite expensive. We have renewed our arrangement with the AMERICAN FRUIT GROWER, by which, in return for monthly information for their "State News" department, the grower members of our two societies are to receive this fine magazine. This offer is limited to those of our members who are fruit growers, as it would be of no interest to others. We ask such growers to send, to either Mr. Graves or myself, frequent reports of their activities, successes and failures, for often we are in a tough spot in supplying the magazine with this information and we must have your help. According to an editorial in CAPPER'S FARMER, there is a scien ific basis for the familiar saying "cool as a cucumber". On a day when the air temperature was 96 and that of the ground 98, a thermometer was inserted in a large cucumber growing in that hot soil and the temperature in this thermometer declined in less than 60 seconds to 78. According to Horticulturists of the Dept. of Agriculture, "apple orchards planted on the contour thrive on steeper slopes than most other fruits if given a permanent or semi-permanent sod system to prevent erosion. It is necessary to establish the levels in the orchard and set out the tree rows so that all trees in a row are at the same elevation. The rows are not straight, but run around the slopes of the hills so that the trees in any row are almost on a level." They suggest that cultivation should be between the rows, not up and down hill. This tends to build up ridges that retard water run-off and in time low natural terraces result. Rotenone, one of our best insecticides, which has been so hard to come by this year, may soon be produced in this country. A much cussed east Texas weed, the devils shoe string (Tephrosia virginiana) has been discovered to be a good source of this substance and this winter a 10 acre plot of this weed will be grown at Woodlake Community Farms, in that state. Thus another weed has seemed to justify its existence. Before Pearl Harbor, the United States imported all its rotenone, derris root coming from Malaya, cube and timbo from the Amazon basin. In sending in his yearly dues, Mr. Chas. S. Blackman of Clark writes: "We have just shipped 3600 bags of Triumph seed potatoes to Havana, Cuba. They arrived in Miami today, are unloaded and put on the S. S. Guardian." Thus are Mr. Blackman's fine seed potatoes getting international recognition, as their excellence deserves. The Dept. of Agriculture suggests a variation in baked apples, core them in the usual way and then fill the cavity with peanut butter and raisins. It sounds promising, who will volunteer to try it? We wish all our readers that survive their "thundering big" thanksgiving dinner, a merry Christmas, a busy and happy new year and a sane fourth of July.

MANITOBA NEWS

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whitewash may be applied to serve as a reflector. Wrappings of burlap strips, white building paper, old magazines and metal lath, or board veneers are effective. A convenient alternate safeguard is to tack a piece of board, preferably white in colour, to the trunk. Protectors are removed next May.

OUT OF BOUNDS

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Your flowers' pranks are innocent,
Mine have a dreaded habit,
Each crock picks out a head to hit:
Before my hand can grab it.

It's spattered some crosspatch's hat.
I'm giving up my garden.
I'm getting much too bored and tired
Of begging peoples pardon.

GARDEN CLUB GLEANINGS

By
Juanita E. Jorgensen

J. E. Jorgensen

Big news as the Dell Rapids garden Club ended its tenth year was the receipt of a graceful silver vase, to be known as the President's Trophy, from Merritt H. Blow of Louisville, Kentucky. The gift was made "to honor all past and future presidents of the Dell Rapids Garden Club", and will become the property of each new leader in turn. Evidently Mr. Blow remembers the work entailed in running the club, for he it was who fathered the movement which resulted in its organization, and was its first president; but it was a lovely thot which prompted such a gift. Now watch for the hair to fly and enliven election night as every member fights to get into the president's chair. Mrs. Flossie Briley will have to watch her laurels next year as she is the proud possessor of the trophy since her re-election.

That makes two trophy awards for this club, as another silver vase has been used as a traveling prize for the best peony exhibited at the annual Peony Show each year. The Peony Cup was donated by two local peony fans, Mr. Guy Neher and W. F. Voy, and since it is not limited as an award to club members alone, makes a real goal to aim for among all peony lovers and results in more and finer exhibits every year.

The last garden club meeting of the season usually brings forth a discussion "to meet during the winter months". Adherents of the winter vacation plan should be squelched; crushed without compromise; for as sure as you will plant Victory Gardens next summer, so sure it is that you cannot wait until the busy summer days are upon you to learn all you want to know about them.

George E. Luxton, readable garden editor of the Mpls. Tribune, ends his column the last of October with "So long, folks, I'll be seeing you next spring". Next Spring! Almost half a year from now! How are his garden fans to meet their problems in the meantime: And suppose the column has inspired an enthusiastic new recruit, an amateur who has eagerly followed Luxton's advice all summer—only to have it cut short like an empty, yawning abyss before him. The loss of this absorbing new interest will create a void which he may fill from some other sphere of activity and thus lose interest in gardening entirely.

And so it is with the garden clubs. Certainly there is no dearth of materials for study; and certainly there is greater need now than ever before for the morale-lifting influence of close-to-Nature study, and none provides a greater source of inspiration for war-weary minds and flagging spirits than does gardening in all its ramifications. The first thing one thinks of to study during South Dakota's "too-cold-to-garden months" is house plants. Don't think just because you "had a program on houseplants three years ago" that the subject is exhausted.

After you learn the names of one-tenth of the plant families you may grow in your winter windows you can begin to study a single family group. From that group you may select one species and subdivide that into all its natural and hybrid members; and all the days and the weeks of the year will not be long enough to use the material available on the subject. You may choose orchids or roses or geraniums. It is all the same, and limitless. Societies, and more recently Round Robins devote their whole existance to one division of a plant species, as for instance, the scented geraniums in infinite variety. You learn about new varieties and their differences in leaf, in color, in growth and in scent; the origin of the scented type and how the new characteristic was nurtured into a whole new class of plants. In this connection, our valuable member and friend Mrs. R. J. Duncomb of Luverne, Minnesota, is an authority on this class of plants.

Your winter club programs may take you on a tour to see America's flowers; to Mexico where botanist Zinn discovered the Cinderella of our gardens which has since been developed into the fulsome zinnia of today; to South America whose plant products form a natural and a commercial bond with our southern neighbors and help to create hemispherical solidarity for the war effort; to China whose varied topography has yielded such a wealth of plant materials for our yards as to earn the title of "Mother of Gardens". The war emphasizes the vital role which drug plants play and points out the need of developing and conserving our natural resources. Then there are the stories of plant hunters, of botanists and of hybridizers which read like fairy tales; there is John Bartram, and Mr. Kurtz and Mr. Keene not to mention David Fairchild and contemporary naturalists. How can anyone say there is no material for programs when there have been 4800 species of flowering plants discovered annually during the past 25 years. The pity of it is we can't have garden club meetings every week in the year instead of trying to reduce the usual dozen or so.

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SOUTH DAKOTA'S MEMBER OF THE YUCCA FAMILY

By
H. R. Woodward

H. R. Woodward

South Dakota's sole representative of the Yucca or Spanish bayonet family is what is known locally in the western part of the state as the soapweed. It is a typical xerophyte or inhabitant of the desert or semi-arid plains, and is scientifically known as the Yucca glauca. It's long, pointed parallel veined leaves and white bell-shaped flowers on tall panicles is a familiar scene on the western landscape. Yucca is the American aboriginal name for several plants of this genus. The shape of the leaves is quite lance-like and sharp-pointed, so the name "Spanish bayonet" seems quite representative for this type of plant.

The greatest number of species and the greatest number of plants are to be found in the Spanish Southwest, California, Arizona, New Mexico as well as Old Mexico and Central America. A number of dwarf varieties are to be found north and east of this section and our soapweed in the western part of South Dakota is one of these.

When one studies the Yucca he cannot fail to notice a relationship between the plant and the yucca moth. They are mutual partners in nature, and their living habits are much like the symbiotic relationship which exists between the crab and the sea anenome and the sponges. In this instance both animals get the benefit from this relationship. The crab gets protection by having a large sponge attached to its back, wherein it will always have something to hide under, and the sponge which has no means of locomotion, will be able to move about at the will of the crab and find new feeding grounds. In the case of the yucca, a moth may be seen busily engaged in visiting blossoms and scraping the anthers bare of their pollin. This she makes into a ball. When the ball is large enough she flies to another plant or flower whose pistil is in the receptive stage, lays an egg in the blossom and covers the egg with the pollin she has collected elsewhere. This insures the setting of the seed by pollinating the yucca blossom and at the same time assures nourishment for the moth larva from the yucca itself.

If one rides through the mountains of Southern California and thru the Mohave Desert about the middle of June, a striking flower called Our Lord's Candle, is seen in every direction. Out of the spiny mass rises a tall flower-talk some ten or fifteen feet in height, and represents such a dramatic scene of western plant life that the Californians are very careful about having it picked. On the western edge of the Mohave and in the San Bernardino Mountains is still another type which grows into tree-like proportions. It is called the Joshua Tree. You will see these trees studding the landscape in every direction, yet they are not quite thick enough to form a forest. They are clumsy trees, some 25 or 30 feet high with no foliage whatever except the dagger-like leaves of olive green bunched on the extremities of the limbs. It is also called yucca. The leaves on the ends of the branches are exactly like our soapweed.

Our local soapweed is also called bear grass. The leaves are stiff and pungent, ranging from 10 to 26 inches in length. The seeds are little black discs and are stacked one upon another in a capsule.

It does not blossom every year, but depends upon moisture, seasons and food conditions. After it blooms, that shoot which bears the blossom dies and a new shoot must develop before it will bloom again. It may bloom in alternate years and it may not. The roots are long. One might see these roots or root stalks exposed on shale banks reaching down to a depth of 20 feet or more. These roots have the faculty of producing a lather when in water. That is why it is known as soapweed.

This plant is truly very persistent. I have a few growing beside a gravel path near my cabin at the Hot Springs County club and the sharp leaves have proved to be a nuisance to silk stockings. It has been found that a sharp hoe applied a couple of times a year will not kill them out, and each summer new shoots appear from the adventitious buds that form on the old deeply imbedded root.

GARDEN CLUB GLEANINGS

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Already this column has over run its alloted space, but I must appropriate a bit more for a personal "thank you" and a wide grin of pleasure for the glad hand you are giving me in the magazine. It is a real thrill, and I hope my work will deserve it. Garden Club readers and friends, will you send me your stories, suggestions and questions? Thank you.

BOOK REVIEWS

By
Mrs. F. Briley

Mrs. F. Briley

Home Vegetable Gardening, by Chas. Nissley, Extension Horticulturist in Vegetable Gardening, Rutgers University. Illustrations by Ruth Nissley. Rutgers University Press, New Brunswick, N. J. Price $1.50.

The text and illustrations in Home Vegetable Gardening fulfils the aim; in the preparation of the book, as brot out by the author in the preface. It gives practical information on the needs of the individual or family, so that they may be in a better position to plan more adequately for their important food requirements, and to give simple instructions covering the important cultural practices in the successful growing of their crops. The chapter on storing vegetables, and the clear-cut line drawings make the text easy to follow. The various gadgets for the use in controlling garden pests seem to be cheap and efficient. I am especially interested in the angle nozzle for spraying the undersides of leaves.

The author tells us how to grow more than sixty vegetables and herbs. Each variety is dealt with separately and information is given that is seldom included in other garden books. A splendid feature is a table which shows the relative distribution of vitamins in a long list of vegetables.

The Soils that support Us, by Charles E. Kellog. The Macmillan Co., 60 Fifth Ave. New York, price $3.50.

This book holds a special interest to us in this section of the country because most of the photographs and drawings were made by the author in connection with his work in the North Dakota Agricultural College, Fargo, and the University of Wisconsin. The author's theory is that both soils and people have their own peculiarities, and that one of the major problems of existence has been and always will be the relationship of different people to individual soils. Naturally, therefore, in his book, The Soils that Support Us there are chapters on all sorts of soils of all sorts of places; little places and big places, grasslands, desert, forested lands, temperate, warm and tropical. Then there are chapters on the parts and life of soil, soils for different crops, plowing and digging, fertilizers, planning the use of the soil. The philosophy found in the last chapter, Soil and the Future, is very interesting. Man gets his food from the soil. Over the centuries those persons who could thrive best on the soil. would have the best chance to live Some hold that the characteristics of the Americans are due in part to much moving from landscape to landslape. It may account for some of our nervousness, tension and hurry. Soil science has a contribution to make toward the future. Be sure to read what it is, according to Kellogg, in The Soils that Support Us.

FRUIT & VEGETABLE NOTES

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ceous odors would drive away snakes or scorpions—a belief surviving to the present day. Nero resorted periodically to a diet of leeks to improve his voice, and garlic was served to Roman soldiers in the belief that it excited courage in battle.

In medieval Medicine, the onion was held in highest esteem; an esteem later reflected by Sydenham who recommended the vegetable for use in smallpox. Lord Bacon believed that the odor of onions would sustain life in the absence of food and water; while Nicolas Lemery, one of the most celebrated chemists of the 17th century, wrote that water in which garlic has been steeped has the power to shatter glass Lind, conqueror of scurvy in the British Navy, held that "vinegar and garlic are no contemtible preservatives in time of infection."

The Edinburgh New Dispensatory of 1803 lists a number of preparations of garlic. In a United States Dispensatory published in 1850, oil of garlic and garlic poultices are highly recommended in the treatment of infectious diseases. In present-day popular medicine, every physician is familiar with the regard accorded onions in the treatment of colds. Perhaps not so generally known, however, is the fact that onions are still sometimes employed in twentieth-century North America for the cure of far more serious diseases—*including even the coccal infections!* . . . This, by placing the vegetables about the sickroom to *absorb* the toxins believed to be responsible for the illness.

The streets of Lima, Peru, have not been moistened by rainfall for years. In this dusty-smelling city, shops do not even stock umbrellas or raincoats. Most Peruvians don't even know what these look like. In spite of this constant drought, many natives have gardens irrigated. Others haul fertile soil by pack mules thousands of feet up the mountainsides and thus transplant their gardens where rains do occur.—Gib Swanson, in Capper's Farmer.

NORTH DAKOTA HORTICULTURE SOUTH DAKOTA

QUESTIONS AND ANSWERS

By
S. A. McCrory

S. A. McCrory

Q. Celery stored in our storage cellar this fall has failed to keep. Can you tell me the reason for its spoiling?

A. In most storage cellars the temperature has not been low enough for good celery storage this fall. The temperature has generally run from forty to fifty degrees Fahrenheit when it should have been 10 or 15 degrees cooler. It is also possible that in supplying moisture the tops were wet as well as the soil about the roots. This would also have encouraged decay of the tops. Celery can not be kept for a very long period unless one can provide proper temperature and moisture conditions.

Q. How is Rubarb forced in a basement during winter months?

A. Rubarb can be forced in a basement during the winter months by placing large roots of the plants in containers of soil. A discarded pail of about twelve quart capacity will serve this purpose. The roots should be dug before the ground freezes and placed in these containers. They should be stored for a time where they will be subject to freezing After the first of January the container may be brought inside for forcing. The best temperature for this seems to be from fifty to sixty degrees. Little light is needed.

Q. How is sage prepared for use?

A. The leaves are picked from the plants and placed in a warm well ventilated place to dry. As soon as they have dried until they break easily they may be run through a food chopper or simply rubbed with the hands until pulverized.

Q. When should vines, such as Ivy, growing from a wall be pruned?

A. Such plants may be successfully pruned during most any season. It is well to do the major pruning during the dormant season, and to restrict the summer pruning to minor trimming. If the vines are pulled loose in places, they should be cut away from the wall now as the winter winds and snow may cause greater pulling away.

Q. How may one keep a Christmas tree from losing its foliage when kept in a house?

A. By standing a tree in water it will lengthen its period of beauty several days. It is well to use a tree that has just been cut if possible. If a tree has been "shipped in" is used it is a good plan to cut an inch or two from the end of the trunk. This will expose a fresh surface to the water. If the tree seems to be drying, it may be sprinkled before bringing it inside. A garden hose will easily remove much dust and give the tree a brighter appearance regardless of its condition.

COOPER'S HAWK

Continued from page 134.

Many tales are told of the daring of the birds and of their skillful flying among trees. One writer described the approach of a nest building pair, "They came through the low woods just above the ground three or four feet, with the speed of an arrow, and when within 15 or 20 feet of the nest tree, they closed their wings with a quick flip and 'slid' up to the nest in a graceful curve". Another observer saw a hawk approach a robin on the ground at the base of a tree, by keeping the tree between them, then suddenly swerving close to the trunk. He missed the robin though.

A recent compilation of the speed of the flight of birds has no data on Cooper's hawk. Its habits would make these especially difficult to secure. For

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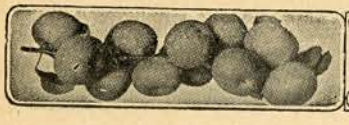
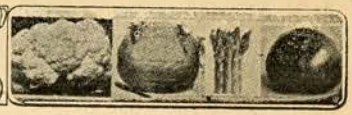


NORTH DAKOTA
HORTICULTURE
SOUTH DAKOTA



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BEEBE'S PHILOSOPHY

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To Winona Axtell Lyon of Sioux Falls, the happy memories of her many generosities.

To my Horticultural Mentor, John Taylor and wife Florence, the delayed Mexican trip.

To Ex-President Wallner, more help and friends in the house and a good price for his onions, which he knows so well.

To Mrs. Jorgenson, of Dell Rapids, or perhaps to ourselves more of Juanita's Jillful Janderings.

To Harry Graves', Mother the 104th Psalm which Rev. McNeil says is for Horticulturists.

And now for the New Year's or just plain winter poem by Rena Chandler, whose birthday is Dec-1st.

I look across my garden plot,
Now covered with its blanket white
To where my neighbors' homes are set.
I see their glowing lamps alight
I smile to know them near, and feel
Companionship that warms my heart,
The night enfolded each and all,
The love of which we are a part.

COOPER'S HAWK

Continued from page 143

years there has been considerable interest in marking hawks with numbered leg-bands. The young are banded in the nest and adults are caught with special steel traps. Up to 1935, 214 Cooper's hawks have been banded and 44 recoveries obtained. Since then about 500 more have been marked. One outstanding record is that of a bird banded in Manitoba and recovered in Colombia, South America, during the winter, four and one-half years later. Other individuals from Manitoba, Wisconsin, Ohio and Michigan, were recovered in Kentucky, Tennessee, Missouri, Mississippi and Texas.